DSCP65

DC Low Voltage Converter

DESCRIPTION

The DSCP65 low voltage converter provides a single channel of low-voltage input which is converted to a current or voltage output. It is designed for industrial-standard voltage or current signals. Input/output range, filter, fault indication, and other functions may be configured by dip-switch. Power can be applied directly to the converter's terminals or through a DIN-rail-mounted bus connector accessory, eliminating the need to wire power to each individual converter.



FEATURES

- Input Voltage: 25mV to 2VDC in 15 Settable Steps
- Output Voltage: 0-5VDC, 0-10VDC, 1-5VDC, 2-10VDC
- Output Current: 0-20mA, 4-20mA, 20mA-0, 20-4mA
- 1500Vrms Galvanic Isolation, 3-way
- 19.2-30VDC Power
- Spring-cage Clamp Connection
- 14-bit Resolution
- Better than ±0.1% Accuracy
- Configuration by Dip-switch
- Compact 6.2mm DIN Housing
- CE Compliant

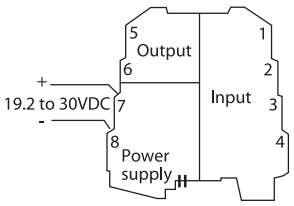
BENEFITS

- High Efficiency and Performance
- Reduced Power Loss During Conversion

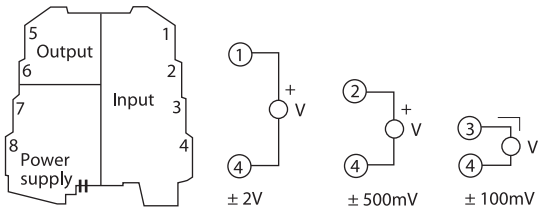
APPLICATIONS

- Data Acquisition
- Test and Measurement
- Control Systems

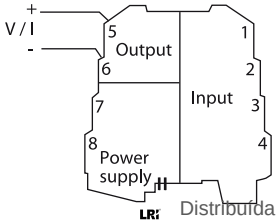
Power Supply



Input



Output



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DSCP65 Electrical Connections

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Specifications

Typical* at T_A = +25°C and +24VDC Loop Power

Module	DSCP65
Input (selectable)	
Voltage (Terminals 3 and 4)	25, 50, 60, 75, 80, or 100mV (Input R = 50kΩ)
Voltage (Terminals 2 and 4)	120, 150, 200, 250, 300, 400, or 500mV (Input R = 250kΩ)
Voltage (Terminals 1 and 4)	1000 or 2000mV (Input R = 1MΩ)
Maximum Input Voltage	±50VDC
Accuracy	±0.1% (max)
Thermal Drift	<120ppm/°K
A/D Conversion	14-bit
Processing	Floating Point 32-bit
Response Time, 90% Span (selectable)	<23ms (without filter), <51ms (with filter)
CMRR	>160dB
Isolation	1500Vrms (1 minute), 3-way
Dip-switch Configuration	Sets Input and Output Ranges, Filter and Faults
Status Indicators (LED)	Internal Fault, Configuration Error, Connection Fault
Output (selectable)	
Current	0-20mA, 4-20mA, 20mA-0 or 20-4mA Load Resistance: 500Ω (max)
Current Output Maximum	25mA
Fault Output	102.5% or 105% of Full-scale Value in Case of Over-range
Voltage	0-5VDC, 1-5VDC, 0-10VDC or 2-10VDC Load Resistance: 2kΩ (min)
Voltage Output Maximum	12.5VDC
Power Supply	19.2-30VDC
Power Consumption	<600mW (22mA at 24VDC)
Hot Swapping	Yes
Mechanical Dimensions (w x h x d)	0.24" x 3.67" x 4.04" (6.2mm x 93.1mm x 102.5mm)
Housing	Terminal Housing for Mounting on 35mm DIN 46277
Connections	Spring-cage Clamp
Weight	1.6 ounces (46g)
Environmental	
Operating Temp. Range	–20°C to +65°C
Storage Temp. Range	–40°C to +85°C
Relative Humidity	0 to 90%, Noncondensing
IP Protection	IP20
Emissions	EN61000-6-4
Immunity	EN61000-6-2

Ordering Information

Model	Description
DSCP65	DC Low Voltage Converter

Accessories

Model	Description
DSCX-02	DIN-rail Expandable Power-bus Connector
DSCP70	Power Supply Connection Module

NOTES:
*Contact factory or your local Dataforth sales office for maximum values.

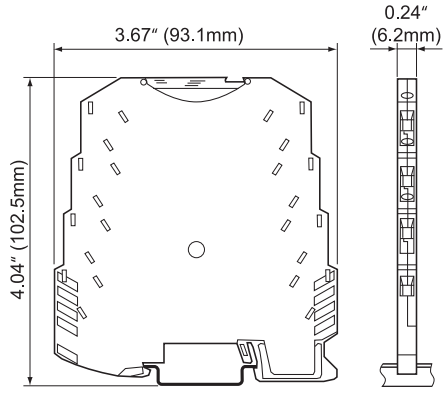
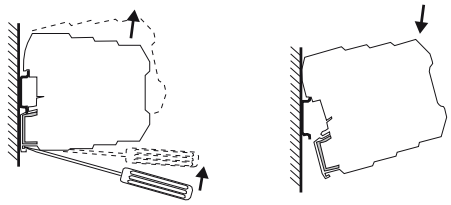
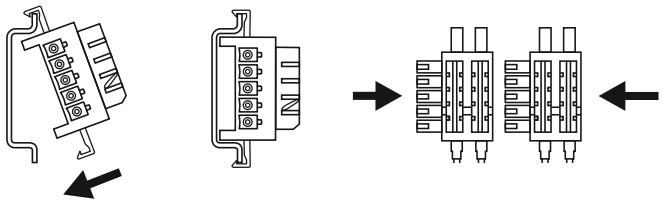


Figure 1: Dimensional Drawing

Inserting/Extracting Module on DIN Guide



Expandable Power-bus Connector



Spring-cage Clamp Connection

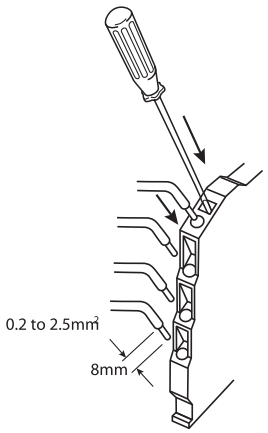


Figure 2: Module Installation

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